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| Notice of Allowability | Application No. | Applicant(s) | |
| | 10/604,610 | MACALUSO ET AL. | |
| | Examiner | Art Unit | |
| | John H. Le | 2863 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 04/12/2005.
2. ☒ The allowed claim(s) is/are 1,4-28 and 31-34.
3. ☒ The drawings filed on 04 August 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413), Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

Response to Amendment

1. Applicant's amendment filed 04/12/2005 has been entered and carefully considered.

Claims 1, 4, 5, 28, and 31 have been amended.

Claims 2-3 and 29-30 have been cancelled.

Reasons for Allowance

2. Claims 1, 4-28, and 31-34 are allowed.
3. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 1, none of the prior art of record teaches or suggests the combination of a method of locating a source of a localized elevation on a substrate, comprising the steps of: (a) measuring a first surface of a plurality of substrates placed separately on a chuck to obtain topography measurements including height (z), pitch, and roll measurements; (b) comparing said z, pitch, and roll measurements to pre-defined limits, wherein the presence of a localized elevation in a field on the first surface of the substrates is detected when any one of said z, pitch, and roll measurements exceeds said pre-defined limit; and (c) determining whether the source results from the chuck. It is these limitations as they are claimed in the combination with other limitations of claim, which have not been found, taught or suggested in the prior art of record, that make these claims allowable over the prior art.

Regarding claim 27, none of the prior art of record teaches or suggests the combination of a computer-readable program product for Causing a computer to detect

Art Unit: 2863

and characterize a defect on a surface of a first wafer, comprising: a first program code means embodied in a computer useable medium for causing the computer to carry out a first set of measurements on a given surface of said first wafer placed on a chuck prior to carrying out an operation on said given surface; a second program code means embodied in a computer useable medium for causing the computer to carry out a second set of measurements on said given surface of said first wafer while carrying out said operation on said given surface; a third program code means embodied in a computer useable medium for causing the computer to determine a difference between said first set of measurements and said second set of measurements; a fourth program code means embodied in a computer useable medium for causing the computer to carry out said first set of measurements, said second set of measurements and said difference measurement on a second wafer placed on the chuck; a fifth program code means embodied in a computer useable medium for causing the computer to carry out said first set of measurements, said second set of measurements and said difference measurement on a third wafer placed on the chuck; and a sixth program code means embodied in a computer useable medium for causing the computer to compare said measurements from said first wafer, said second wafer, and said third wafer to determine whether a defect results from said chuck. It is these limitations as they are claimed in the combination with other limitations of claim, which have not been found, taught or suggested in the prior art of record, that make these claims allowable over the prior art.

Regarding claim 28, none of the prior art of record teaches or suggests the combination of a program storage device readable by a machine, tangibly embodying a program of instructions executable by a machine to perform a method of locating a source of a localized elevation on a substrate, comprising the steps of: (a) measuring a first surface of a plurality of substrates placed separately on a chuck to obtain topography measurements including height (z), pitch, and roll measurements; (b) comparing said z, pitch, and roll measurements to pre-defined limits, wherein the presence of a localized elevation in a field on the first surface of the substrates is detected when any one of said z, pitch, and roll measurements exceeds said pre-defined limit; and (c) determining whether the source results from the chuck. It is these limitations as they are claimed in the combination with other limitations of claim, which have not been found, taught or suggested in the prior art of record, that make these claims allowable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John H Le whose telephone number is 571-272-2275. The examiner can normally be reached on 8:00 - 4:30.

Art Unit: 2863

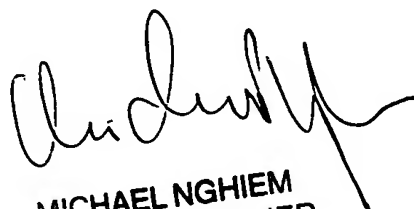
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E Barlow can be reached on 571-272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

John H. Le

Patent Examiner-Group 2863

April 14, 2005



MICHAEL NGHIEM
PRIMARY EXAMINER